

Title (en)

INFRARED DETECTOR WITH EXTENDED SPECTRAL RESPONSE IN THE VISIBLE FIELD

Title (de)

INFRAROTDETEKTOR MIT ERWEITERTEM SPEKTRALEN ANSPRECHVERHALTEN IM SICHTBAREN FELD

Title (fr)

DETECTEUR INFRAROUGE A REPONSE SPECTRALE ETENDUE DANS LE VISIBLE

Publication

EP 2359414 B1 20170215 (FR)

Application

EP 09768376 A 20091208

Priority

- EP 2009066632 W 20091208
- FR 0806997 A 20081212

Abstract (en)

[origin: WO2010066735A2] The invention relates to an infrared detector that comprises SWIR semiconducting materials which are sensitive to wavelengths lower than about 2.5 microns, said detector comprising a stack of semiconducting layers containing III-V materials defining a PIN photodiode, said stack including at least: one so-called lower exposed electric contact used as an optical window; and one detection layer sensitive to said wavelengths; characterised in that the so-called lower contact includes at least one pseudomorphic layer of n-doped III-V material(s) with an indirect gap or mesh-adjusted with a substrate used as a transitory substrate that can be made of an InP or GaAs III-V material, or of silicon or germanium.

IPC 8 full level

H01L 31/105 (2006.01); **H01L 31/0304** (2006.01)

CPC (source: EP US)

H01L 31/03046 (2013.01 - EP US); **H01L 31/105** (2013.01 - EP US); **Y02E 10/544** (2013.01 - US); **Y02P 70/50** (2015.11 - EP US)

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK SM TR

DOCDB simple family (publication)

WO 2010066735 A2 20100617; WO 2010066735 A3 20110603; EP 2359414 A2 20110824; EP 2359414 B1 20170215; FR 2939967 A1 20100618; FR 2939967 B1 20110318; US 2011248316 A1 20111013; US 8610171 B2 20131217

DOCDB simple family (application)

EP 2009066632 W 20091208; EP 09768376 A 20091208; FR 0806997 A 20081212; US 200913139238 A 20091208